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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,377	01/19/2001	Shuichi Sakamoto	500.39531X00	7664

24956 7590 05/05/2005

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EXAMINER

DEMICCO, MATTHEW R

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/764,377

Applicant(s)

SAKAMOTO ET AL.

Examiner

Matthew R. Demicco

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 4 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4 and 6-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/13/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is responsive to an amendment filed 12/13/2004. Claims 1, 3-4 and 6-13 are pending. Claims 1, 3-4 and 6-12 are amended. Claim 13 is new. Claims 2 and 5 are canceled. The objections to the drawings and claims are withdrawn in light of the amendment. The 35 U.S.C. 112 rejection of claim 12 is withdrawn in light of the amendment.

Response to Arguments

2. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection. Further, Applicant argues that Aharoni does not disclose a bandwidth calculating means, or means for managing information of a total available bandwidth. Aharoni clearly teaches calculating bandwidth (Col. 13, Line 36 – Col. 16, Line 32). This calculated bandwidth is the amount of bandwidth that is available over the network for transmitting data. This reads on the information of a total *available* bandwidth. Applicant further argues that Van does not teach a protocol for use in each combination of server and terminal wherein the table of protocols facilitates communication for each combination of server and terminal. The Examiner points out that Applicant is arguing in terms of the specification and not the language as claimed. Applicant's claim language does not positively recite selecting a video server *from a plurality of video servers based on a protocol determination*.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 6,014,694 to Aharoni et al. in view of U.S. Patent No. 6,658,476 to Van.

Regarding Claim 1, Aharoni discloses a video content transmitting system (See Figure 2) having at least one video content transmitting server (18) and being capable of transmitting requested video contents in response to a request from a video content play terminal (Col. 11, Lines 26-30) connected via a network to at least one video content transmitting server (See Figure 1). Aharoni further discloses a plurality of servers that each store data of a different bandwidth and selecting a server based on a client's available bandwidth (Col. 18, Lines 3-61). This reads on the claimed means for determining the video content server capable of transmitting video contents to a terminal that requested video transmission. What is not disclosed, however, is means for storing information of a network protocol capable of video content transmission between the terminal and the server, wherein the protocol information storing means includes a table storing a name of each network protocol capable of video content transmission between each terminal and the server.

Van discloses a client-server system (See Figure 3) wherein a client is able to retrieve from the server a list of protocols that the server supports (Col. 2, Lines 56-61) in order to use the most preferred compatible protocol. The list of protocols is stored on the server (Col. 7, Lines 27-29). This reads on the claimed storing information of a network protocol capable of video content transmission between the terminal and the server. Further, the list of protocols stored at the server includes a name of each network protocol capable of video content transmission between the terminal and the server (Col. 7, Lines 30-37). Such a list of data that is stored in memory reads on the claimed table. Van is evidence that ordinary workers in the art would recognize the benefits of providing multiple protocols and allowing a client to determine which server protocol to use. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Aharoni with the multiple protocols and protocol determination of Van in order to request and receive video using the most desirable protocol to maximize speed, reliability (Col. 7, Line 5), protocol richness and security (Col. 5, Line 67). Aharoni discloses a server determining means as stated above that chooses a server based on a user request that is in accordance with the user's available bandwidth. In combination with Van, the server uses a network protocol supported by both the server and client as determined from information stored in the information storing means. This reads on the claimed server capable of transmitting video contents in accordance with the stored network protocol information.

Regarding Claim 9, see Claim 1 above.

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5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aharoni et al. in view of Van and further in view of U.S. Patent No. 6,392,664 to White et al.

Regarding Claim 3, Aharoni in view of Van disclose a system as stated above in Claim 1. What is not disclosed, however, is a first network and a second network. White discloses an entertainment system for video-on-demand services (Col. 1, Line 65 – Col. 2, Line 7 and Col. 3, Line 51-54) wherein the terminal is connected to a high-speed network (See Figure 3, 60 and Col. 2, Lines 1-3) and a dial up network (See Figure 3, 58 and Col. 3, Lines 24-26) for return channel data (Col. 10, Lines 32-38). This reads on the claimed first network and second network, wherein the first network (dial-up) is used for video content transmission requests transmitted to the video content transmitting system from the terminal (back channel request) and a second network (broadband) is used when the video contents are transmitted from the server to the terminal in response to the request. Further, it is inherent that in such a TCP/IP network (Col. 2, Lines 42-44) that an address (e.g. IP Address, MAC Address, terminal ID, phone number) must be stored to identify the terminal via the first and second network in order for data transmitted and received by the terminal to be properly routed to the correct terminal. This reads on the claimed determining the video content destination address in accordance with the stored addresses on the first and second networks. White is evidence that one of ordinary skill in the art would appreciate the ability to use a first and second network in a video content transmitting system. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Aharoni in view of

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Van with the two networks of White in order to support interactive video requests in a one-way network that does not provide an integrated return channel.

6. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aharoni et al. in view of U.S. Patent No. 6,735,631 to Oehrke et al.

Regarding Claim 4, Aharoni discloses a video content transmitting system (See Figure 2) having at least one video content transmitting server (18) and being capable of transmitting requested video contents in response to a request from a video content play terminal (Col. 11, Lines 26-30) connected via a network to at least one video content transmitting server (See Figure 1). Aharoni further discloses that the system measures the total available (unused) bandwidth for video content transmission of a network route between the terminal and the server (Col. 3, Lines 47-49). This reads on the claimed means for managing information of a total available bandwidth. Once free bandwidth is determined the system is operable to determine a bit-rate of a video stream that will best satisfy the available bandwidth (Col. 8, Lines 3-6) and further measures the bandwidth utilization over time to adjust the bit-rate of the video stream as necessary (Col. 7, Lines 30-40). This reads on the claimed bandwidth calculating means for calculating a bandwidth of the network route to be used for transmission of requested video contents. Aharoni further discloses a plurality of servers, each with a different bit-rate data, and determining which server is to send data to a user based on the available bandwidth (Col. 18, Lines 2-61). This reads on the claimed transmission processing means for determining the video content transmitting server capable of transmitting the requested

video contents to the requested video content play terminal in accordance with the total available bandwidth (free bandwidth) and the calculated bandwidth necessary for video content transmission (the specific bit-rate video to be transmitted based on the available bandwidth). Further, the data regarding the total available bandwidth for each client must be stored in memory in order to make the above-mentioned determination. This reads on the claimed bandwidth information managing means including a table storing information indicative of a relation between each network route (connection to each client) and the total available bandwidth. What is not disclosed, however, is managing information of a bandwidth now in use for the video content transmission, storing the information in a table and determining a server in accordance with the bandwidth now in use.

Oehrke discloses a network (See Figure 2) for providing load balancing (Col. 3, Lines 66-67) for network traffic, such that the traffic is directed to the most responsive server to speed up user requests (Col. 4, Lines 14-20). Load is distributed across a plurality of servers based on bandwidth in use (data rate) on the server (Col. 5, Lines 40-43). This reads on the claimed managing information of a bandwidth now in use and determining a server in accordance with the bandwidth now in use. It is inherent that this data must be stored in a memory to be useable for such a determination. Storage of data in a memory reads on the claimed table. Oehrke is evidence that one of ordinary skill in the art would appreciate the ability to perform load balancing across a plurality of servers based on bandwidth now in use. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of

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Aharoni with the load balancing of Oehrke in order to provide the most responsive service to user requests as stated above.

Regarding Claim 10, see Claim 4 above.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aharoni et al. in view of Oehrke et al. and further in view of White et al.

Regarding Claim 6, Aharoni in view of Oehrke disclose a system as stated above in Claim 4. What is not disclosed, however, is a first network and a second network. White discloses an entertainment system for video-on-demand services (Col. 1, Line 65 – Col. 2, Line 7 and Col. 3, Line 51-54) wherein the terminal is connected to a high-speed network (See Figure 3, 60 and Col. 2, Lines 1-3) and a dial up network (See Figure 3, 58 and Col. 3, Lines 24-26) for return channel data (Col. 10, Lines 32-38). This reads on the claimed first network and second network, wherein the first network (dial-up) is used for video content transmission requests transmitted to the video content transmitting system from the terminal (back channel request) and a second network (broadband) is used when the video contents are transmitted from the server to the terminal in response to the request. Further, it is inherent that in such a TCP/IP network (Col. 2, Lines 42-44) that an address (e.g. IP Address, MAC Address, terminal ID, phone number) must be stored to identify the terminal via the first and second network in order for data transmitted and received by the terminal to be properly routed to the correct terminal. This reads on the claimed determining the video content destination address in accordance with the stored addresses on the first and second networks. White is evidence that one of ordinary skill in

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the art would appreciate the ability to use a first and second network in a video content transmitting system. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Aharoni in view of Van with the two networks of White in order to support interactive video requests in a one-way network that does not provide an integrated return channel.

8. Claims 7 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aharoni et al. in view of Van and further in view of Oehrke et al.

Regarding Claim 7, see Claim 1 above. Aharoni further discloses that the system measures the total available (unused) bandwidth for video content transmission of a network route between the terminal and the server (Col. 3, Lines 47-49). This reads on the claimed means for managing information of a total available bandwidth. Once free bandwidth is determined the system is operable to determine a bit-rate of a video stream that will best satisfy the available bandwidth (Col. 8, Lines 3-6) and further measures the bandwidth utilization over time to adjust the bit-rate of the video stream as necessary (Col. 7, Lines 30-40). This reads on the claimed bandwidth calculating means for calculating a bandwidth of the network route to be used for transmission of requested video contents. Aharoni further discloses a plurality of servers, each with a different bit-rate data, and determining which server is to send data to a user based on the available bandwidth (Col. 18, Lines 2-61). This reads on the claimed transmission processing means for determining the video content transmitting server capable of transmitting the requested video contents to the requested video content play terminal in accordance with

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the total available bandwidth (free bandwidth) and the calculated bandwidth necessary for video content transmission (the specific bit-rate video to be transmitted based on the available bandwidth). Further, the data regarding the total available bandwidth for each client must be stored in memory in order to make the above-mentioned determination. This reads on the claimed bandwidth information managing means including a table storing information indicative of a relation between each network route (connection to each client) and the total available bandwidth. What is not disclosed, however, is managing information of a bandwidth now in use for the video content transmission, storing the information in a table and determining a server in accordance with the bandwidth now in use.

Oehrke discloses a network (See Figure 2) for providing load balancing (Col. 3, Lines 66-67) for network traffic, such that the traffic is directed to the most responsive server to speed up user requests (Col. 4, Lines 14-20). Load is distributed across a plurality of servers based on bandwidth in use (data rate) on the server (Col. 5, Lines 40-43). This reads on the claimed managing information of a bandwidth now in use and determining a server in accordance with the bandwidth now in use. It is inherent that this data must be stored in a memory to be useable for such a determination. Storage of data in a memory reads on the claimed table. Oehrke is evidence that one of ordinary skill in the art would appreciate the ability to perform load balancing across a plurality of servers based on bandwidth now in use. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of

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Aharoni in view of Van with the load balancing of Oehrke in order to provide the most responsive service to user requests as stated above.

Regarding Claim 11, see Claim 7 above.

Regarding Claim 12, Aharoni in view of Van and further in view of Oehrke disclose a method as stated above in Claim 11. Van further discloses that a client is operable to select a protocol that it supports (Col. 2, Lines 56-63) but may default to a lower level protocol (Col. 7, Lines 1-11). It is inherent that the client would only be able to utilize a protocol that is compatible with the network infrastructure it is using in order to properly communicate with the server (e.g. a client could not use an ATM or FDDI protocol when using a TCP/IP based Ethernet network). This reads on the claimed table for storing information of a network protocol usable for video content transmission between the video terminal and the video content transmitting terminal can select a network protocol in accordance with the request by the play terminal and a network infrastructure.

Regarding Claim 13, Aharoni in view of Van and further in view of Oehrke disclose a system as stated above in Claim 7, wherein the network protocol storing means includes a table storing a name of each network protocol capable of video transmission between each terminal and each video transmitting server as stated above. The bandwidth information managing means includes a table storing information indicative of a relation between each network route, the total available bandwidth and the bandwidth now in use as stated above.

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9. Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aharoni et al. in view of Van and further in view of Oehrke et al. and still further in view of White et al.

Regarding Claim 8, Aharoni in view of Van and further in view of Oehrke disclose a system as stated above in Claim 7. What is not disclosed, however, is a first network and a second network. White discloses an entertainment system for video-on-demand services (Col. 1, Line 65 – Col. 2, Line 7 and Col. 3, Line 51-54) wherein the terminal is connected to a high-speed network (See Figure 3, 60 and Col. 2, Lines 1-3) and a dial up network (See Figure 3, 58 and Col. 3, Lines 24-26) for return channel data (Col. 10, Lines 32-38). This reads on the claimed first network and second network, wherein the first network (dial-up) is used for video content transmission requests transmitted to the video content transmitting system from the terminal (back channel request) and a second network (broadband) is used when the video contents are transmitted from the server to the terminal in response to the request. Further, it is inherent that in such a TCP/IP network (Col. 2, Lines 42-44) that an address (e.g. IP Address, MAC Address, terminal ID, phone number) must be stored to identify the terminal via the first and second network in order for data transmitted and received by the terminal to be properly routed to the correct terminal. This reads on the claimed determining the video content destination address in accordance with the stored addresses on the first and second networks. White is evidence that one of ordinary skill in the art would appreciate the ability to use a first and second network in a video content transmitting system. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Aharoni in view of

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Van and further in view of Oehrke with the two networks of White in order to support interactive video requests in a one-way network that does not provide an integrated return channel.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew R. Demicco whose telephone number is (571) 272-7293. The examiner can normally be reached on Mon-Fri, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



mrdr
April 27, 2005



CHRIS GRANT
PRIMARY EXAMINER